

REMARKS

Claims 1-21 are pending in the present application. Claims 2, 3, 9, 10, 16, and 17 were canceled; claims 1, 4, 8, 11, 15, and 18 were amended. Claims 1, 8, and 15 were amended to incorporate the limitations of their respective dependent claims, namely claims 2 and 3 for claim 1; claims 9 and 10 for claim 8, and claims 16 and 17 for claim 15. Claims 4, 11, and 18 were amended to correct dependency. Reconsideration of the claims is respectfully requested.

Amendments were made to the specification to obviate Examiner's objection to the Abstract. No new matter has been added by any of the amendments to the specification.

I. 35 U.S.C. § 102, Anticipation

The examiner has rejected claims 1, 8, and 15 under 35 U.S.C. § 102 as being anticipated by Davis et al. This rejection is now believed moot in light of the current claim amendments. Favorable reconsideration of the claims is respectfully requested.

II. 35 U.S.C. § 103, Obviousness

The examiner has rejected claims 3, 10, and 17 under 35 U.S.C. § 103 as being unpatentable over Davis (USPN 5742829, in view of Sakanishi USPN 6678888B1, and further in view of Johnson et al. USPN 5623696A. This rejection is respectfully traversed.

In rejecting the claims, Examiner states:

However, Davis and Sakanishi references does not explicitly disclose,
- further comprising the step of distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file.
Johnson teaches,
- further comprising the step of distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file.
(Johnson, abstract, col. 1, lines 8-11, lines 40-53; col. 2, lines 5-26, lines 30-54; col. 3, lines 29-47; fig. 1-2.)

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Johnson reference with Davis and Sakanishi references to minimize the operating cost and enhance the flexibility of the network system by allowing the support for multiple hardware devices via device drivers in a heterogeneous client computer systems. In other words, each computer system having a different operating system is able to utilize hardware device drivers designed specifically for that operating system.

Applicant respectfully disagrees with this interpretation of Davis, as argued below. Claim 1, incorporating Canceled claims 2 and 3, is reproduced for purposes of discussion.

1. (Currently Amended) A method in a data processing system including a server computer system coupled to a plurality of heterogeneous client computer systems via a network for automatically installing a device driver on said plurality of heterogeneous client computer systems, wherein each of said heterogeneous client computer systems executes a different one of a plurality of operating systems, said method comprising the steps of:

specifying said plurality of heterogeneous client computer systems to receive said device driver;

storing a plurality of different versions of said device driver in said server computer system, wherein each one of said plurality of different versions is executable by only a different one of said plurality of operating systems;

copying one of said plurality of different versions of said device driver to one of said plurality of client computer systems which is executing one of said plurality of different operating systems, wherein said one of said plurality of different versions of said device driver is executable by said one of said plurality of different operating systems; and

said server computer system causing said one of said plurality of client computer systems to install said one of said plurality of different versions of said device driver;

further comprising the step of creating a file including a plurality of entries, each one of said plurality of entries specifying a different one of said plurality of client computer systems, one of said plurality of different operating systems, and a network address of said one of said plurality of client computer systems; and

further comprising the step of distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file.

The present invention teaches a system for installing device drivers in a heterogeneous client environment using a file including entries specifying different client computers, their operating systems, and a network address for the client computers, as

well as the step originally from claim 3) of "distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file."

Examiner admits that Sakanishi does not teach the limitations of former claim 3, recited above, stating at page 5 of the Office action: "However, Davis and Sakanishi references does not explicitly disclose, "further comprising the step of distributing said plurality of versions of said device driver to said plurality of client computer systems utilizing said file." To cure this deficiency, Examiner cites Johnson et al. as teaching, "distributing said plurality of versions of said device to said plurality of client computer systems utilizing said file."

However, Johnson does not appear to teach or suggest using a file that includes a plurality of entries each specifying a client computer, the operating system, and a network address of that computer in order to distribute a plurality of versions of a device driver to the client computers.

Johnson is directed to a system for formatting a request into a packet that can be read by different operating systems for providing a device driver for a storage device. The abstract, cited by Examiner, states in part:

The present invention constructs SCSI device support code so that it can be ported to multiple operating system environments. ... This method and system allows for a plurality of devices to be utilized on a plurality of operating system platforms. The method and system comprises receiving a request from a user for a particular device, formatting the request into at least one common packet and then providing the at least one common packet to each of the plurality of operating system platforms.

This does not appear to teach or suggest the above emphasized limitations in currently amended claim 1. No mention of a file having the recited attributes is mentioned, and no suggestion is made to modify the teaching of Johnson to incorporate such a file or to use such a file to distribute drivers to heterogeneous clients.

Examiner also cites Johnson at col. 2, lines 5-26. This section discusses reducing the number of drivers necessary for each operating system, as stated at lines 20-27:

Accordingly, what is needed is a system for reducing the number of drivers necessary for each operating system. IN addition, what is needed is a system or

method for reducing the number of device drivers required for each device. In so doing, it is important that the operating system not be substantially modified. The system and method should be one in which there is minimal additional cost to the operating system. The present invention addresses such a need.

This section thus does not appear to teach or suggest the limitations of amended claim 1.

Examiner also cites Johnson at col. 2, lines 30-54, which state in part:

The present invention constructs SCSI device support code so that it can be ported to multiple operating system environments. The invention also allows support for a device to be coded only one, and yet be supported on multiple operating system environments.

This section too fails to teach or suggest the limitations of amended claim 1, and instead appear to be directed to formatting a request into a packet capable of being read by multiple operating systems. No teaching or suggestion is made regarding using a file to distribute versions of a device driver to client computers.

Finally, Examiner cites Johnson at col. 3, lines 29-47. This section appears to discuss general configurations for peripheral device drivers for controlling data storage devices. This section, according to Johnson, discusses "well known" principles of receiving data input and output, how requests are made, and generally how device drivers work. Applicant finds no teaching or suggestion of the limitations of claim 1, as amended. Further, Applicant finds no teaching or suggestion to modify the teaching of Johnson to include the limitations of claim 1. If Applicant has overlooked a relevant teaching, it is respectfully requested that such teaching be pointed out with particularity.

Claims 8 and 15 were rejected under the same reasoning as claim 1, and are therefore believed distinguished on the reasoning applied above. Further, by virtue of their dependence on allowable independent claims, it is respectfully submitted that all dependent claims are also allowable over the cited references. Favorable reconsideration of the claims is respectfully requested.

III. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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